PROCEEDINGS

OF THE

BIOLOGICAL SOCIETY OF WASHINGTON

FOUR NEW BIRDS FROM THE PHILIPPINES AND GREATER SUNDA ISLANDS.¹

BY J. H. RILEY.

The following four apparently unnamed forms have been discovered in a further study of the collection made in Celebes by Mr. H. C. Raven² and are herewith described.

Anthreptes malacensis paraguæ, subsp.. nov.

Type, adult male, U. S. National Museum, No. 233332, Puerto Princesa, Palawan, Philippines, December 14, 1891. Collected by D. C. Worcester and F. S. Bourns (original No. 3274).

Similar to Anthreptes cagayanensis Mearns, but the metallic violet reflections more uniform and deeper on the crown and upper back and the breast a clearer yellow. Wing, 67; tail, 45; culmen, 17 mm.

Remarks.—This race is founded upon a good series of both sexes. All the males agree in having the crown, hind-neck, and upper back deep metallic violet and only show dark green reflections to any extent when held with the bill towards the light. Anthreptes malacensis wiglesworthi has the crown and upper back a deep, bright, shining coppery green; in Anthreptes malacensis cagayanensis these parts have a metallic violet wash in addition to the green; while in Anthreptes malacensis paraguae the metallic violet wash is intensified and the metallic green has almost entirely disappeared.

Females of Anthreptes malacensis paraguæ are similar to the same sex of Anthreptes malacensis cagayanensis but the yellow below is slightly purer, not quite so greenish.

Anthreptes malacensis bornensis, subsp. nov.

Type, adult male, U. S. National Museum, No. 211591, Po Bui Island, Sandakan, British North Borneo, March 1, 1908. Collected by Paul Bartsch.

¹ Published by permission of the Secretary of the Smithsonian Institution.

² Cf. Proc. Biol Soc. Wash., 31, 1918, pp. 155-160; and 32, 1919, pp. 93-96.

Similar to *Anthreptes malacensis*, *malacensis* but the breast deeper yellow, the brown of the throat redder; the cheeks strongly washed with the color of the throat; and the middle and greater wing-coverts washed with a deeper and more reddish brown. Wing, 66.5; tail, 46; culmen, 18 mm.

Remarks.—This race is founded upon a good series from the type locality and the U. S. National Museum contains a large series from northern Dutch East Borneo, and a male from Labuan that seems to belong to the same form. A specimen from Pulo Laut, Southeast Borneo, seems to belong to the Javan race. Malay Peninsula specimens have the cheeks olive-green, sometimes with a slight reddish cast, but nothing like the deep wash in the North Bornean specimens. In the color of the throat, cheeks, and middle wing-coverts Anthreptes malacensis bornensis approaches Anthreptes rhodolaema, but it cannot be a race of that species as there are specimens of both species in th U. S. National Museum from the same locality at sea-level in northern Dutch East Borneo.

Females of Anthreptes malacensis bornensis differ from the same sex of Anthreptes malacensis malacensis in being much deeper and brighter yellow below.

Enodes erythrophrys centralis, subsp. nov.

Type, adult male, U. S. National Museum, No. 250862, Goenoeng Lehio, Celebes, January 13, 1917. Collected by H. C. Raven (original No. 3392).

Similar to *Enodes erythrophrys erythrophrys*, but superciliaries orange chrome not flame scarlet; rump and crissum lighter yellow; outer margins of wing feathers and upper surface of tail more greenish; and wing and tail shorter. Wing, 109; tail, 106.5; culmen, 19; tarsus, 26.5; middle toe, 21.5 mm.

Remarks.—In addition to the type the present race is founded upon a male from Winatoe, a male and two females from the Lindoe Trail, three males and two females from Besoa, and a male from Rano Rano. For comparison the collection contains a good series of northern birds. All the specimens from the north have the peculiar superciliary feathers flame scarlet while the form from the north central part of the island has these feathers orange chrome; this is the most striking difference and seems to be constant, the other characters, except size, are only average and inconstant.

The two series average as follows:

	Wing.	Tail.	Culmen.
Seven males, north Celebes	111.2	113.2 104.6 104.1 98.3	17.8 18 17.7 16.6

Munia punctulata particeps, subsp. nov.

Type, adult male, U. S. National Museum, No. 251332, Rano Lindoe, Celebes, March 15, 1917. Collected by H. C. Raven (original No. 3920). Similar to *Munia punctulata cabanisi* of the Philippines, but darker above, the closed wing outwardly deeper more rusty brown, the throat and cheeks deeper brown, especially on sides of face and lores, the barring on the breast and flanks much coarser and darker brown. Wing, 50.5;

Remarks.—The above race is founded upon four adult males from the type locality, two adult females from Napoe, and one adult female from Besoa; in addition there are several immature specimens from the type locality and Gimpoe that have not been taken into consideration. This is the bird described as Munia punctulata nisoria by Meyer and Wiglesworth,¹ but they could hardly have compared specimens from Celebes with those from Java, or they certainly would have seen how different they are. The Javan bird has the rump barred with white and the tail gray above, while the Celebes form has the rump unbarred and the tail buffy citrine; the latter race is also darker above and on the throat, with the white of the belly more restricted; and is smaller.

Walden² had noticed the difference between the color of the tails of the Java race and that of the only specimen he had from Celebes. Stresemann³ has indicated the Celebes bird as probably a distinct form but did not name it, probably because his series was inadequate. As a matter of fact in size and in the color of the back and tail, the Celebes bird approaches the Philippine form, but in the coarser markings of the breast and flanks it more closely resembles Javan specimens. It is perfectly distinct from either and well merits recognition. I have been unable to compare it with *Munia punctulata blasii* Stresemann, not having specimens, but it is undoubtedly different, judging from his description and remarks.

tail, 40: culmen, 11 mm.

¹ Birds of Celebes, 2, 1898, 548.

² Tr. Zool. Soc., Lond., 8, 1872, 73.

³ Nov. Zool. 19, 1912, 317,